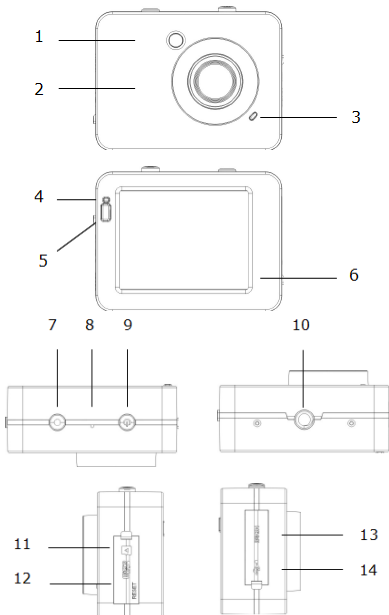


CAMCOLVC23

FULL HD ACTION AND SPORTS CAMERA
 FULL HD ACTIE- EN SPORTCAMERA
 CAMÉRA D'ACTION ET DE SPORT FULL HD
 CÁMARA FULL HD DE ACCIÓN Y PARA DEPORTISTAS
 FULL HD ACTION- UND SPORTKAMERA
 CÂMARA DE AÇÃO E DESPORTO FULL HD
 KAMERA AKCJI ORAZ KAMERA SPORTOWA FULL HD



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USER MANUAL

1. Introduction

To all residents of the European Union

Important environmental information about this product



This symbol on the device or the package indicates that disposal of the device after its lifecycle could harm the environment. Do not dispose of the unit (or batteries) as unsorted municipal waste; it should be taken to a

specialized company for recycling. This device should be returned to your distributor or to a local recycling service. Respect the local environmental rules.

If in doubt, contact your local waste disposal authorities.

Thank you for choosing Velleman! Please read the manual thoroughly before bringing this device into service. If the device was damaged in transit, don't install or use it and contact your dealer.

2. Safety Instructions

	WARNING Do not puncture or throw batteries in fire as they might explode. Keep batteries away from children.
	This device contains an internal rechargeable battery. When the device is end-of-life, it must be disposed of in accordance with local regulations.
	DO NOT disassemble or open the cover. There are no user-serviceable parts inside the device.

3. General Guidelines

Refer to the **Velleman® Service and Quality Warranty** on the last pages of this manual.

- Keep this device away from dust and extreme temperatures.
- Protect this device from shocks and abuse. Avoid brute force when operating the device.
- Do not aim the camera at the sun or other extremely bright objects.
- Do not touch the lens.

- Familiarise yourself with the functions of the device before actually using it.
- All modifications of the device are forbidden for safety reasons. Damage caused by user modifications to the device is not covered by the warranty.
- Only use the device for its intended purpose. Using the device in an unauthorised way will void the warranty.
- Damage caused by disregard of certain guidelines in this manual is not covered by the warranty and the dealer will not accept responsibility for any ensuing defects or problems.
- There are no user-serviceable parts inside the device. Refer to an authorized dealer for service and/or spare parts.
- Do not use this product to violate privacy laws or perform illegal activities.

4. Features

- action and sports camera with different mounting brackets and waterproof case
- the video capture camera records images on a micro SD card (not included)
- video recording quality: 1080p HD video - 30 fps
- easy and user-friendly setup
- touch colour display
- IR remote control
- 2 video recording modes:
 - car mode: the recorder will erase the oldest file when the micro SD-card is full
 - video function: the recorder will record video until the micro SD-card is full

5. Overview

Refer to the illustrations on page 2 of this manual.

1	Infrared light	2	Camera lens
3	Charging indicator	4	Display off indicator
5	Display on/off button	6	Display
7	Power button	8	Microphone
9	Shutter button	10	Tripod socket
11	Micro SD slot	12	Reset button

13 HDMI port

14 USB port

6. Inserting a Memory Card

- Push the Micro SD card into the card slot. The arrow on the cover indicates how to insert the card.
- To take out the Micro SD card, gently press the end of the memory card and it will pop up.

Note



For 1080P video capture, it is recommended to use a class 10 SD card of 8 GB or larger.

7. Charging the Camera


- To charge the camera, connect the USB port of the camera [14] to a USB port of your computer with the included USB cable.
- The red indicator [3] lights up when the camera is charging and turns off when fully charged. Charging takes about 2-4 hours.
- The camera functions cannot be used while connected to your computer.
- If the camera is turned on while connected to the computer, you can access the files on the camera's SD card.
- See Safety Instructions above for details about battery disposal.

8. Operation

8.1 Turn the Camera on and off

Turn on the camera	To turn on the camera, press and hold the power button  for 2 seconds.
Turn off the camera	To turn off the camera, short press the power button  .
Power save mode	When the camera remains unused for a certain time, it enters power save mode. The indicator on the back [4] lights up.
Turn off the display	You can turn off the display with button [5].

8.2 Setting the time and date

1. Tap the DATE/TIME icon  on the display.

2. Use the arrows ▲ and ▼ to change a setting.
3. Use the arrows ► and ◀ to switch to another item (day, month, year, minutes, seconds and date format).
4. Tap the SET icon.

8.3 Camera Modes

The camera has 3 modes, each represented by an icon in the upper left of the display.



video



photo



car

The camera always starts in video mode when you switch it on. Tap the mode icon until the mode you want is active.

8.4 Icons and Settings

Using the icons

To use the icons

- Tap a function icon to access the options.
The options appear at the bottom of the display.
- Tap the option you want.
- Tap the function icon again to cancel.

Generic icons

The icons below are available in all modes (video, photo, vehicle).





	sets date and time
	battery level
	playback
	zoom in - zoom out The zoom factor is displayed between both icons.

Icons in photo mode


The specific functions for photo mode are:

	Turns face recognition on or off.
--	-----------------------------------



CAMCOLVC23

 12345	Sets the image resolution. The number next to the icon shows the remaining number of images you can take in the selected resolution (depending on the size of the SD card).
[Shooting modes]	The icon shows the shooting mode that is currently set.
	No shooting mode is set.
	Self-timer The picture is taken 10 seconds after you push the shutter button.
	Continuous shooting Takes 3 pictures with one press on the shutter button.


Icons in video mode

 02:05:10	Sets the video resolution. The time next to the icon is the remaining time you can record in the selected resolution (depending on the size of the SD card).
---	---

Icons in vehicle mode

	Allows flipping the camera image. Useful if you are hanging the camera upside down.
 02:05:10	Sets the video resolution. The time next to the icon is the remaining time you can record in the selected resolution (depending on the size of the SD card).


8.5 Recording Video

- When you switch on the camera, it starts in video mode .
When in another mode, tap the mode icon to change the mode.
- Press the shutter button to start recording.
The display shows the recording time.
- Press the shutter button again to stop recording.

Notes


- If the SD card is full, the camera stops recording.

8.6 Taking a Picture

- Tap the mode icon to set the photo mode .
- Press the shutter button to take a picture.

See section Icons and settings above for details about the options.

8.7 Vehicle Mode




- Tap the mode icon to set the vehicle mode .
- Press the shutter button to start recording.
The display shows the recording time.
- Press the shutter button again to stop recording.

Notes

- In vehicle mode, the camera does not stop recording when the card is full. It erases the oldest files and continues recording.
- See section Icons and settings above for details about the options.



8.8 Viewing Files

To view a picture or a recording:

- Tap the Playback icon .
- Tap the type of file you want to view .
- Select the file from the list.
- Tap ► or ◀ to browse through the files.
The images are shown in the background.
- Tap the Playback icon  to exit.

8.9 Deleting Files

To delete a picture or a recording:

- Tap the Playback icon .
- Tap the type of file you want to delete .
- Select the file from the list.
- Tap Delete.
- Tap Yes twice to confirm.

- Tap the Playback icon  to exit.

9. Managing files from your Computer

You can manage files on the SD card by connecting the camera to a computer. To do so:

1. Switch on the camera.
 2. Connect the USB port of the camera [14] to a USB port of your computer with the included USB cable.
- The camera appears as a removable disk on your computer.
 - The camera saves the files in the following folders
 - VIDEO: recordings taken in video mode
 - CAR: recordings taken in vehicle mode
 - JPG: pictures


Note

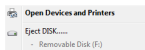
The camera functions cannot be used while the camera is connected to your computer.

When done, safely remove the device from your computer:

Windows®

To safely remove the device:


1. Click the icon Safely Remove Hardware  in the notification area at the right of the taskbar and click the device that you want to remove.



Windows will display a notification telling you it's safe to remove the device.

2. Unplug the device from the USB port.

Macintosh®

1. In the Finder, click the Eject icon  next to the device.
2. Unplug the device from the USB port.

10. Remote Control

Make sure the remote control contains a battery.

- Point the remote to the infrared eye on the camera.
- The remote has the following buttons
 - Power: turns off the camera.
 - Snap: takes a picture.
 - Video: records video.



11. Waterproof Housing

The camera comes with a waterproof housing. It is recommended to test the housing without the camera before use.

- Before sealing the waterproof case, make sure the camera housing's rubber seal is clean. A single hair or grain of sand can cause a leak. You can test the housing by closing the case without inserting the camera. Submerge the case completely in water for about a minute. Remove the case from the water, dry off its exterior with a towel, then open the case. If the entire interior is dry, the case is safe for use under water.
- Remember to put the camera in the desired mode before inserting the camera in the waterproof case. There is no external button to change the camera mode.
- After every use in salt water, you will need to rinse the outside of the housing with non-salt water and dry it. Not doing this can eventually cause corrosion of the hinge pin and salt build-up in the seal, which can cause failure.
- To clean the seal, rinse in fresh water and shake dry. Drying the seal with a cloth may cause the seal to leak. Re-install the seal into the grooves in the backdoor of the housing.

12. Cleaning and Maintenance

Battery

	<p>WARNING</p> <ul style="list-style-type: none"> • Do not puncture or throw batteries in fire as they might explode. • Keep batteries away from children.
	<p>This device contains an internal, non-removable, rechargeable battery. When the device is end-of-life, it must be disposed of in accordance with local regulations.</p>

- There are no user-serviceable parts.
- Wipe the device regularly with a dry, lint-free cloth. Do not use alcohol or solvents.

13. Technical Specifications

storage capacity	max. 32 GB SD-HC card (not incl.)
pick-up element	5 megapixel CMOS
viewing angle	120° (wide angle) f = 2.9 mm
built-in microphone	yes
PC camera function	no
aperture	F3.1
white balance	auto
HDMI port	yes
video	video resolution: 1080P @ 30fps
	video file format: H.264 (AVI)
	recording capacity: ±100 MB/min
image	image resolution: 5 megapixel
	image resolution: 12 megapixel interpolated
battery in camera	built-in lithium 1500mAh battery
	lifetime: ± 2.5 hours
battery in remote control	3V lithium CR2025
dimensions	70 x 52 x 34 mm
weight	72 g

Use this device with original accessories only. Velleman nv cannot be held responsible in the event of damage or injury resulting from (incorrect) use of this device. For more info concerning this product and the latest version of this manual, please visit our website www.velleman.eu. The information in this manual is subject to change without prior notice.

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